

REMARKS/ARGUMENTS

Applicants would like to thank the Examiner for the careful examination given to the present application. The application has been reviewed in light of the Office action, and it is respectfully submitted that the application as amended is in condition for allowance.

Claims 1 and 15 have been amended.

Claims 1, 6-9, and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama (US Patent No. 5,493,604 A) in view of Azartash et al. (WO 9921343 A1) and further view of Takahashi (JP 411027352A). Claims 1 and 15 have been amended. For the following reasons, the examiner's rejection is respectfully traversed.

None of the references disclose or suggest "an I/O connector section" included in an upper case as recited in amended claims 1 and 15. Hirayama is cited for disclosing this element.

Hirayama discloses a LCD 13 and volume adjust buttons 14 provided on an upper case 3 of a portable phone. However, Hirayama fails to disclose whether the phone has an I/O connector section and where it would be located. Azartash and Takahashi do not overcome the deficiencies of the Hirayama patent. Azartash and Takahashi also fail to disclose an I/O connector section and where it would be located. Therefore, even if combined, the references do not disclose or suggest all the elements of the claimed invention

Furthermore, there is no suggestion or motivation for one skilled in the art at the time the invention was made to combine Azartash with Hirayama to arrive at the claimed invention. Hirayama discloses a upper case 1 with an ear piece 12, antenna 11, LCD 13, and volume adjust buttons 14; and a lower case 2 with a mouth piece 23, keypad 21, and battery 26. Azartash discloses a base member 16 with a keypad 16, LCD 22, and all the necessary electronics or circuitry of the phone; and a cover member 14 that is a thin flip cover with a view window 12 and

perhaps a vibrator. The Azartash cover member 14 may be the upper case or the lower case.

When the Azartash cover member 14 is the upper case, the cover member 14 has an ear piece and the base member 16 has a mouth piece. When the Azartash base member 16 is the upper case, the base member 16 has the ear piece, and cover member 14 has the mouth piece.

Although Azartash discloses a vibrator, Azartash only teaches that the vibrator may be located in a thin flip cover, which may be *either the upper case or lower case*. Azartash fails to teach that the vibrator must be located in the upper case. Therefore, the combination of Azartash and Hirayama would result in *Hirayama including a vibrator, and not that Hirayama would have a vibrator in the upper case*. Thus, there is no motivation to look at or use the Azartash vibrator location to place a vibrator in the upper case of the Hirayama phone. The desirability of such a modification is found only in the Applicants' own description of the invention, in contrast to the requirement that the teaching or suggestion to make the modification must be found in the prior art, and not based on an applicant's disclosure. Reconsideration and withdrawal of the rejection based upon the combination of references is respectfully requested.

Further, there is no suggestion or motivation for one skilled in the art at the time the invention was made to combine Takahashi with Azartash and Hirayama to arrive at the claimed invention. Takahashi discloses a circuit on a processing circuit board 19 located under a keypad 13. Since the Hirayama keypad 16 is *located in the lower case*, the combination of Takahashi with Azartash and Hirayama would result in Hirayama having a processing circuit board under the keyboard in lower case, and not that Hirayama would have a processing circuit board in the upper case. Thus, there is no motivation to look at or use the Takahashi processing circuit board 19 to place a control processing section in the upper case of the Hirayama phone. The desirability of such a modification is found only in the Applicants' own description of the invention, in contrast

to the requirement that the teaching or suggestion to make the modification must be found in the prior art, and not based on an applicant's disclosure. Reconsideration and withdrawal of the rejection based upon the combination of references is respectfully requested.

Claims 3 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama, Azartash, and Takahashi and further in view of Takagi et al. (U.S. Patent No. 5,235,636) and Hitachi (JP06268724A). For the following reasons, the examiner's rejection is respectfully traversed.

None of the references disclose or suggest that "the flexible board shares its use as a connecting board for connecting the upper case and the lower case" as recited in claim 3. Similar language is found in claim 16. The Office action acknowledges that Hirayama, Azartash, Takahashi, and Takagi do not disclose such a flexible board, but cites Hitachi for discloses these elements.

Hitachi discloses an FPC board electrically connecting housings 1 and 2 (Abstract). It appears from Figs. 6 and 8, that the FPC board is a connection between two hard printed boards that are located in housings 1 and 2, respectively. Therefore, the Hitachi FPC board is not a flexible board used as a keyboard that shares its use a connecting board, as the Hitachi FPC board is only functioning as a connection between the two hard print boards. Thus, even if combined, the references do not disclose or suggest all the elements of the claimed invention.

Furthermore, there is no suggestion or motivation for one skilled in the art at the time the invention was made to combine Hitachi with Hirayama, Azartash, Takahashi, and Takagi to arrive at the claimed invention. Takagi discloses a single case with a flexible printed board 8 used as a keyboard. Hitachi discloses a FPC board that is a connection between two hard printed boards. Therefore, the combination of the Takagi flexible printed board with the Hitachi FPC board would

only result in the Hitachi FPC board being *a connection between a flexible printed board and a hard printed board*. There is no motivation to look at or use the Hitachi FPC board connection to provide for one (1) flexible printed board that is used as a connection and includes the arrangement of the keyboard. The desirability of such a modification to extend the flexible print board of the keyboard to share its use as a connecting board is found only in the Applicants' own description of the invention, in contrast to the requirement that the teaching or suggestion to make the modification must be found in the prior art, and not based on an applicant's disclosure. Reconsideration and withdrawal of the rejection based upon the combination of references is respectfully requested.

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama, in view of Azartash, Takahashi, Takagi, and Hitachi, and further in view of Ikenouchi et al. (U.S. Patent 5,835,863). For following reasons, the examiner's rejection is respectfully traversed.

None of the references disclose or suggest that "a battery terminal, a microphone, a key diaphragm, and a LED for keys are all mounted on portions of one surface of the flexible board and said portions are folded or turned down before storing in the lower case" as recited in claim 4.

Hirayama discloses a lower case 2 with a keyboard and microphone on the front surface and a battery on the back surface. However, Hirayama not disclose or suggest that a battery terminal, a microphone, a key diaphragm are *all mounted on portions of the same surface* of a board. Hirayama also does not disclose that these *portions of the board are folded or turned down* before being placed in the case. None of the other references overcome the deficiencies of the Hirayama patent. Therefore, even if combined, the references do not disclose all the elements of the claimed invention.

Claims 11 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over

Hirayama, in view of Weisshappel et al. (U.S. Patent No. 5,857,148), and further in view of Tamura (JP 406224816) and Takahashi. For following reasons, the examiner's rejection is respectfully traversed.

There is no suggestion or motivation for one skilled in the art at the time the invention was made to combine Takahashi with Hirayama, Weisshappel, and Tamura to arrive at the claimed invention. Takahashi discloses a circuit on a processing circuit board 19 located under a keypad 13. Since the Hirayama keypad 16 is *located in the lower case*, the combination of Takahashi with Hirayama, Weisshappel, and Tamura would result in Hirayama having a processing circuit board under the keyboard in lower case, and not that Hirayama would have a processing circuit board in the upper case. Thus, there is no motivation to look at or use the Takahashi processing circuit board 19 to place a control processing section in the upper case of the Hirayama phone. The desirability of such a modification is found only in the Applicants' own description of the invention, in contrast to the requirement that the teaching or suggestion to make the modification must be found in the prior art, and not based on an applicant's disclosure. Reconsideration and withdrawal of the rejection based upon the combination of references is respectfully requested.

Claims 12 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama, in view of Weisshappel, Tamura, and Takahashi and further in view of Hitachi and Takagi. For following reasons, the examiner's rejection is respectfully traversed.

None of the references disclose or suggest that "the flexible board shares its use as a connecting board for connecting the upper case and the lower case" as recited in claim 12. Similar language is found in claim 18. Hitachi is cited for discloses these elements.

Hitachi discloses an FPC board electrically connecting housings 1 and 2 (Abstract). It appears from Figs. 6 and 8, that the FPC board is a connection between two hard printed boards

that are located in housings 1 and 2, respectively. Therefore, the Hitachi FPC board is not a flexible board used as a keyboard that shares its use a connecting board, as the Hitachi FPC board is only functioning as a connection between the two hard print boards. Thus, even if combined, the references do not disclose or suggest all the elements of the claimed invention.

Furthermore, there is no suggestion or motivation for one skilled in the art at the time the invention was made to combine Hitachi with Hirayama, Azartash, Takahashi, and Takagi to arrive at the claimed invention. Takagi discloses a single case with a flexible printed board 8 used as a keyboard. Hitachi discloses a FPC board that is a connection between two hard printed boards. Therefore, the combination of the Takagi flexible printed board with the Hitachi FPC board would only result in the Hitachi FPC board being *a connection between a flexible printed board and a hard printed board*. There is no motivation to look at or use the Hitachi FPC board connection to provide for one (1) flexible printed board that is used as a connection and includes the arrangement of the keyboard. The desirability of such a modification to extend the flexible print board of the keyboard to share its use as a connecting board is found only in the Applicants' own description of the invention, in contrast to the requirement that the teaching or suggestion to make the modification must be found in the prior art, and not based on an applicant's disclosure. Reconsideration and withdrawal of the rejection based upon the combination of references is respectfully requested.

Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama, in view of Weisshappel, Tamura, Takahashi, and further in view of Ikenouchi and Mendolina (U.S. Patent No. 5,751,804). For following reasons, the examiner's rejection is respectfully traversed.

None of the references disclose or suggest that "a battery terminal, the vibrator, a microphone, a buzzer, a key diaphragm, and a LED for keys are all mounted on a same surface of

the flexible board and folded or turned down before storing in the lower case" as recited in claim 13.

Hirayama does not disclose or suggest that a battery terminal, a vibrator, a microphone, a buzzer, and a key diaphragm are all mounted on *a same surface* of a board. None of the other references overcome the deficiencies of the Hirayama patent. Ikenouchi only discloses a wireless telephone that has light-emitting diodes. Mendolina discloses a phone with a buzzer, but does not disclose the location of the buzzer. Therefore, even if combined, the references do not disclose all the elements of the claimed invention.

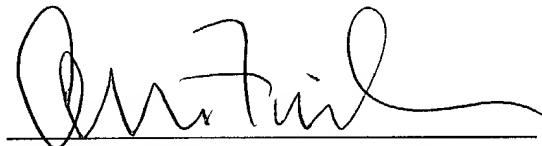
In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge the same to our Deposit Account No. 16-0820, our Order No. 33388.

Respectfully submitted,

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